

REMARKS

STATUS OF THE CLAIMS

Claims 1-45 were pending in this application. Claims 7, 9, 23, 24, 26, 32, and 43 have been cancelled without prejudice. Claims 1-6, 8, 10, 12, 16, 18-22, 25, 27, 30, 33, 34, 39-42, 44, and 45 have been amended. Following entry of the amendments claims 1-6, 8, 10-22, 25, 27-31, 33-42, 44, and 45 and will be pending and at issue.

INTERVIEW SUMMARY

A telephone interview was conducted between the Examiner and Antonia Sequeira, the Applicants' representative, on January 16, 2007. Ms. Sequeira indicated to the Examiner that the section 101 rejection in the Non-Final Office Action mailed on October 17, 2006 did not correspond with the current claims. The Examiner agreed with this, and indicated that he would send a new Non-Final Office Action revising the section 101 rejection and resetting the period for response to provide another 3 months from the mailing date of this second, revised Action. The Examiner indicated that the Applicants were to respond only to the second revised Action, and were not to respond to the Office Action of October 17, 2006. In addition, the Examiner confirmed via a brief phone call on February 1, 2007 that Applicants are not required to file a Statement of the Substance of the Interview within a month of the interview date. Instead, Applicants can file a Statement of the Substance of the Interview (as has been done here) with their Response to the Office Action received on January 25, 2007 since this is the last office action in this case as it supersedes the October 17, 2006 Action.

IDS

The Examiner indicated that the information disclosure statement filed 12/27/04 included several non-patent literature articles (citations C1, C10-C11, and C13-C16) in Japanese. Applicants re-submitted these references in an IDS on February 2, 2007 along with translations and/or summaries in English. Applicants request that Examiner consider these re-submitted references.

REJECTIONS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Claims 1-45 were rejected under 35 U.S.C. § 112, second paragraph as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have corrected these typographical errors and thus request withdrawal of this rejection as drawn to the amended claims. In addition, Applicants have corrected other typographical errors in the dependent claims.

REJECTIONS UNDER 35 U.S.C. § 101

Claims 1-45 were rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. The Examiner indicated that, in claims 1 and 16, the “claimed steps appear to be pure mathematical manipulations rather than a practical application of those manipulations with a tangible result that enables any usefulness of the results to be realized.” Office Action, p. 3. The Examiner provides an example by stating that “a formatting of data appears in the claim language, but no use of that formatted data is recited.” *Id.*

Applicants respectfully note that claim 16, which the Examiner refers to as an independent claim, is actually a dependent claim. Applicants presume that the Examiner intended to refer to independent claim 25, and thus address claims 1 and 25 below. Claims 1 and 25 recite a system and method for generating a representation of time-based media. These claims, as amended, recite “printing a document displaying the formatted media representation, the document including user selectable identifiers representing the features extracted from the media content for selection by a user to play media content segments of a defined length associated with each of the features.” This step of printing produces a useful, concrete, and tangible result (e.g., the printed document), and the media representation that was formatted in the formatting step is displayed in the printed document that further includes user selectable identifiers representing the features extracted from the media content in the extraction step. Thus, the claimed steps are not pure mathematical manipulations, but are a practical application of those manipulations to produce a concrete, useful, and tangible result.

The Examiner further indicated that claim 1 is “directed to software per se (i.e., a software system),” and so this claim “lacks the necessary physical articles or objects to constitute

a machine or a manufacture within the meaning of 35 USC 101.” Office Action, p. 4. The Examiner indicated that the claim is “clearly not a series of steps or acts to be a process nor is it a combination of chemical compounds to be a composition of matter,” and thus it “fails to fall within a statutory category,” but is “at best, functional descriptive material *per se*.” *Id.*

It is well settled that there is no prohibition of software *per se*. Rather, the test for statutory subject matter is first whether the claimed invention falls within an enumerated statutory category (i.e., process, machine, manufacture, or composition of matter), and if it does, whether the claimed invention falls within a judicial exception (e.g., laws of nature, natural phenomena, and abstract ideas). *See MPEP 2106*. In stating that claim 1 to be unpatentable for failing to fall within a statutory category since it is directed to “software *per se*,” the Examiner circumvented the tests for patentable subject matter laid out in MPEP 2106. Accordingly, the Office Action fails to provide a *prima facie* case of unpatentability under § 101, as “[t]he burden is on the USPTO to set forth a *prima facie* case of unpatentability.” *See MPEP 2106*.

Nevertheless, Applicants note that claim 1, as amended, recites a computer system, which falls under the “machine” category of the four categories of statutory subject matter. Although the claimed system may be implemented using software, the courts have consistently held that a claim involving software is patentable under § 101 where data are transformed to produce a useful, concrete, and tangible result. *See State St. Bank & Trust Co. v. Signature Fin. Group*, 149 F.3d 1368, 1373 (Fed. Cir. 1998); *Arrhythmia Research Tech., Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1058-59 (Fed. Cir. 1992). In *State Street*, for example, the act of momentarily displaying a single number on a computer screen was held to be sufficiently concrete and tangible under § 101. Here, the rejected claims do recite a transformation that produces a useful, concrete, and tangible result, under the *State Street* standard, as explained above.

Accordingly, Applicants request withdrawal of this ground of rejection.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 1-6, 11-31, and 35-43 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over either Sekiguchi et al. (US Patent No. 6,611,628) in view of Kanevsky et al. (US Patent No. 6,687,383). Applicant traverses this ground of rejection.

Three requirements must be met for a prima facie case of obviousness. First, the prior art references must teach all the limitations of the claims. Second, there must be a motivation to modify the reference or combine the teachings to produce the claimed invention. Third, a reasonable expectation of success is required.

Claim 1, as amended, discloses the following:

A system for generating a representation of time-based media, the system comprising:
a feature extraction module for:
extracting features from media content; and
generating a media representation representing the features extracted;
a formatting module for formatting the media representation generated, the formatting module being communicatively coupled to the feature extraction module to apply features extracted to the media representation, wherein the formatting module formats the representation according to a representation specification; and
a printer for printing the media representation, the printer being communicatively coupled
to the formatting module to receive instructions for printing a document
displaying the media representation, the document including user selectable identifiers representing the features extracted from the media content for selection by a user to play media content segments of a defined length associated with each of the features.

Claim 25, as amended, discloses the following:

A method for generating a representation of time-based media, the method comprising:
extracting features from media content;
generating a media representation representing the features extracted;
formatting the media representation according to a representation specification, the formatting including applying the features extracted to the media representation;
and
printing a document displaying the media representation, the document including user selectable identifiers representing the features extracted from the media content for selection by a user to play media content segments of a defined length associated with each of the features.

The cited prior art references do not teach all of the elements of the claims. Sekiguchi does not teach “a printer for printing the media representation, the printer being communicatively coupled to the formatting module to receive instructions for printing a

document displaying the media representation, the document including user selectable identifiers representing the features extracted from the media content for selection by a user to play media content segments of a defined length associated with each of the features” of amended claim 1. Sekiguchi further does not teach “printing a document displaying the media representation, the document including user selectable identifiers representing the features extracted from the media content for selection by a user to play media content segments of a defined length associated with each of the features” of amended claim 25.

Sekiguchi describes a feature encoding unit that “extracts and encodes a feature of a video signal so as to generate a feature stream.” Sekiguchi, Abstract. Sekiguchi explains more specifically that the image feature coding method includes “extracting segments of image areas from an image frame; attaching a segment number to each of the extracted segments; assigning a representative color to each of the extracted segments; computing a relative area of each of the segments with respect to the image frame; coding the representative color and the relative area to produce a feature of the image; and generating a feature stream corresponding to the image having the feature encoded therein.” Sekiguchi, col. 2, lines 27-36. Thus, Sekiguchi extracts a portion of an individual image frame and codes the color and area of the portion to produce what Sekiguchi calls a “feature.” The sections of Sekiguchi cited by the Examiner do not disclose extracting features where the features are associated with segments of media content of a defined length. Further, the “features” described in the cited sections of Sekiguchi are not features that can be played, much less played by selection of a user-selectable identifier representing the feature extracted.

Further, Sekiguchi does not disclose printing of a document displaying the media representation, nor does Sekiguchi disclose printing of a document including user selectable identifiers representing the features extracted from the media content for selection by a user to play media content segments of a defined length associated with each of the features. The Examiner, when referring to dependent claims disclosing elements relating to printing admitted that Sekiguchi does not teach these printing limitations. *See Office Action p. 9 (referring to claims 23 and 24) and p. 7 (referring to claims 3 and 6).*

Kanevsky does not remedy these deficiencies in Sekiguchi. The Examiner relied on Kanevsky to provide elements relating to printing, stating that Kanevsky discloses “printing out a ‘hardcopy.’” Office Action, p. 7. However, the sections of Kanevsky cited do not disclose printing of a document including user selectable identifiers representing features extracted from the media content. Further, there is no mention in the cited sections of Kanevsky of selection of user-selectable identifiers by a user to play media content segments of a defined length associated with each of the features.

Accordingly, the combination of Sekiguchi and Kanevsky does not teach all of the elements of the claims, and so cannot render independent claims 1 and 25 obvious, nor the claims that depend therefrom (claims 2-6, 11-24, 25-31, and 35-43).

Claims 7-10, 32-34, and 44-45 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over either Sekiguchi in view of Kanevsky, further in view of J. Graham et al. (“Video Paper: A Paper-Based Interface for Skimming and Watching Video,” ICCE ’02, Jun. 18-20, 2002, p. 214-215). For at least the reasons stated above regarding why Sekiguchi and Kanevsky do not render the independent claims 1 and 25 obvious, these references further fail to render the dependent claims 7-10, 32-34, and 44-45 obvious.

Graham does not remedy these deficiencies in Sekiguchi and Kanevsky. The Examiner relied on Graham to provide user selectable identifiers, such as bar codes, and admitted that Sekiguchi does not teach such elements. However, Graham does not disclose printing a document including user selectable identifiers representing features extracted from media content for selection by a user to play media content segments of a defined length associated with each of the features.

Accordingly, the combination of Sekiguchi, Kanevsky, and Graham does not teach all of the elements of the claims, and so cannot render claims 7-10, 32-34, and 44-45 obvious.

The cited art also does not teach or provide a motivation to combine the teachings. The Examiner must show “reasons that the skilled artisan, confronted with the same problem as the inventor, and with no knowledge of the claimed invention, would select the elements from the cited prior art reference for combination in the manner claimed.” *In re Rouffet*, 47 USPQ2d at

1458, 1453 (Fed. Cir. 1998). Here, Sekiguchi, Kanevsky, and Graham cannot be combined to produce the claimed invention. As explained above, Sekiguchi simply extracts a portion of an individual image frame and codes the color and area of the portion to produce what Sekiguchi calls a “feature.” Sekiguchi, col. 2, lines 27-36. Kanevsky, on the other hand, discloses a system for encoding audio information into video or image pixels. *See* Kanevsky, col. 3, lines 35-36. In Kanevsky, whole image video data input from video source 23 and audio data input from audio source 25 is input to a transformation device such as an audio-to-video transcoder 50 which enables the coding of audio data into video image/data.” *Id.* at col. 3, lines 37-42.

There would have been no motivation to combine Sekiguchi and Kanevsky to produce the element of “printing a document displaying the media representation, the document including user selectable identifiers representing the features extracted from the media content for selection by a user to play media content segments of a defined length associated with each of the features.” The printing out of a “hardcopy” that the Examiner relies on in Kanevsky refers to the printing of combined “audio and video image data as pixel data for representation in the digital space.” Kanevsky, col. 4, lines 17-22. One of ordinary skill in the art would not have thought to combine Sekiguchi’s extracted portions of individual image frames with Kanevsky’s printing of pixel data to produce printing of a document including user selectable identifiers representing the features extracted from the media content. Kanevsky does not disclose printing a document displaying extracted features, nor does Kanevsky disclose printing of a representation that would have been useful in displaying Sekiguchi’s extracted portions of individual image frames. Further, the bar codes of Graham that the Examiner pointed to would not have been useful as user selectable identifiers of Sekiguchi’s extracted portions of individual image frames since there would be no media content of a defined length associated with features to play upon selection of the bar codes. One of ordinary skill in the art would not have thought to apply these bar codes to the portions of individual image frames in Sekiguchi, and one of ordinary skill would not have thought to display such bar codes on the printed hardcopy of Kanevsky since Kanevsky does not disclose printing of any representation containing content to be played by user selectable identifiers. As stated by the Court of Appeals for the Federal Circuit *In re Fine*, 5

USPQ2d 1596, 1600 (Fed. Cir. 1988): “One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.”

In conclusion, the cited references do not disclose all the limitations of the claims, and there is no motivation to combine the references as suggested by the Examiner. Accordingly, a *prima facie* case of obviousness has not been presented by the Office. Therefore, withdrawal of this ground of rejection of the claims is respectfully requested.

CONCLUSION

Withdrawal of the pending rejections and reconsideration of the claims are respectfully requested, and a notice of allowance is earnestly solicited. If the Examiner has any questions concerning this Response, the Examiner is invited to telephone Applicant's representative at (650) 335-7185.

Respectfully submitted,
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